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Please find below and/or attached an Office communication concerning this application or proceeding.

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# BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

**MAILED**

**APR 2 1 2006**

**Technology Center 2100**

Application Number: 10/054,539
Filing Date: October 25, 2001
Appellant(s): PARKER ET AL.

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Mark L. Mollon
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<u>For Appellant</u>

## EXAMINER'S ANSWER

This is in response to the appeal brief filed 1/30/2006 appealing from the Office action mailed 8/11/2005.

## (1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

## (2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

## (3) Status of Claims

The statement of the status of claims contained in the brief is correct.

## (4) Status of Amendments After Final

No amendment after final has been filed.

## (5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

## (6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

## GROUNDS OF REJECTION NOT ON REVIEW

The following grounds of rejection have not been withdrawn by the examiner, but they are not under review on appeal because they have not been presented for review in the appellant's brief:

Claims 4-6 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (US 6,119,160) in view of RAD Data Communications in further view of Li et al. (US 6,119,165).

Claims 7 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (US 6,1 19,160) in view of RAD Data Communications in further view of Brown et al. (US 6,732, 179).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. (US 6,119,160) in view of RAD Data Communications in further view of Bero (US 6,769,031 ).

## (7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

## (8) Evidence Relied Upon

No evidence is relied upon by the examiner in the rejection of the claims under appeal.

## (9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-3,8,10, and 11 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Zhang et al. (US 6,119,160) in view of RAD Data Communications.

With regard to claim 1, Zhang discloses a network system comprising: a plurality

of service-option resources (Col 5, Lines 44-50 and Fig 1, 14 &16) each having a

respective numerical network address (IP address); an authorization server storing

respective user profiles for identifying service-option resources to which each one of a

plurality of users are authorized to use (AAA server) (Col 4, Lines 19-26); and a plurality

of service selection gateways (Fig 1, 122, 144) coupled said service-option resources,

said address server, and said authorization server, each service selection gateway:

receiving user traffic from a respective user directed to a nominal destination (service

login request) (Col 4, Lines 56-58), determining if said user traffic directed to said

nominal destination should be redirected to one of said service-option resources in

response to a respective user profile (determine if access is authorized) (Col 5, Lines 6-

12).

Zhang fails to specifically disclose an address server storing said numerical

network addresses and a respective logical name corresponding to each numerical

network address, said address server responding to queries by providing a numerical

network address corresponding to a logical name contained in a respective query or

querying said address server for a respective numerical network address fir redirecting

said user traffic according to said respective logical name.

RAD Data Communications discloses a well-known system for translating logical names into numerical addresses. RAD discloses an address server storing said numerical network addresses (IP address) (Page 2) and a respective logical name corresponding to each numerical network address (domain name) (Page 3). The address server responds to queries by providing a numerical network address corresponding to a logical name contained in a query (Pages 7-8). Using this system to query for a numerical address corresponding to the logical name of the appropriate service-option resource would have been an advantageous addition to the system disclosed by Zhang. This system would have allowed the service-option resources to be referred to by a hostname in the service selection gateway, making it easier for administrators to remember the names of the available resources when configuring the gateways. Additionally, changes in the IP address of the service-option resources would be handled by the DNS system, and would not require reconfiguration at the service selection gateway.

Therefore, it would have been obvious to one of ordinary skill in the art to use logical names to refer to the service-option resources and resolve them into IP addresses using the DNS system disclosed by RAD. This would have made it easier for administrators to remember the names of the available resources when configuring the gateways and eliminated reconfiguration of the service selection gateway when the IP address of the service-option resources changed.

With regard to claims 2 and 10, RAD Data Communications further discloses that said numerical network addressers are comprised of IP addresses (Page 2).

With regard to claims 3 and 11, Zhang further discloses that said service-option resources include subscription services and wherein said network apparatus further comprises a service selection dashboard through which said users obtain authorization for said subscription services (Col 3, Lines 64-66).

With regard to claim 8, Zhang discloses a method of forwarding user traffic in a computer network including a plurality of service-option resources each having a respective numerical network address (IP address), said method comprising the steps of: storing respective user profiles for identifying service-option resources to which each one of a plurality of users are authorized to use (Col 4, Lines 19-26); receiving at a service selection gateway user traffic from a user in the form of a packet having a nominal destination (service login request) (Col 4, Lines 56-58); determining where said packet should be redirected in response to respective user profile (determine if access is authorized) (Col 5, Lines 6-12); and said service selection gateway redirecting said packet to said respective numerical network address (user is connected to service) (Col 5, Lines 44-50).

Zhang fails to specifically disclose an address server storing said numerical network addresses and a respective logical name corresponding to each numerical network address, said address server responding to queries by providing a numerical

network address corresponding to a logical name contained in a respective query or querying said address server for a respective numerical network address to redirect according to said respective logical name.

RAD Data Communications discloses a well-known system for translating logical names into numerical addresses. RAD discloses an address server storing said numerical network addresses (IP address) (Page 2) and a respective logical name corresponding to each numerical network address (domain name) (Page 3). The address server responds to queries by providing a numerical network address corresponding to a logical name contained in a query (Pages 7-8). Using this system to query for a numerical address corresponding to the logical name of the appropriate service-option resource would have been an advantageous addition to the system disclosed by Zhang. This system would have allowed the service-option resources to be referred to by a hostname in the service selection gateway, making it easier for administrators to remember the names of the available resources when configuring the gateways. Additionally, changes in the IP address of the service-option resources would be handled by the DNS system, and would not require reconfiguration at the service selection gateway.

Therefore, it would have been obvious to one of ordinary skill in the art to use logical names to refer to the service-option resources and resolve them into IP addresses using the DNS system disclosed by RAD. This would have made it easier for administrators to remember the names of the available resources when configuring the

gateways and eliminated reconfiguration of the service selection gateway when the IP

address of the service-option resources changed.


### (10) Response to Argument

A summary of the various points raised by Applicant is presented below, and

each point is addressed individually by the examiner.


Regarding claims 1-3, 8, 10, and 11:

a) Appellant argues that "the recited address server is not a domain name

server" (Page 5, Lines 15-16 of Brief).

b) Appellant argues that "The human accessing the service options in unaffected

by the implementation of the present invention" (Page 5, Lines 23-24 of Brief).

c) Appellant argues that "the address server of the present invention is fulfilling

an entirely different purpose – which is to make reconfiguration of service selection

gateways possible without making any changes to the service selection gateways"

(Page 5, Line 25 to Page 6, Line 2 of Brief).

d) Appellant argues that "when changes are made, the administration of the

system requires the administrator to continue to know the numerical IP address since it

will be necessary to modify the address server to account for changes in resources" and

that "the added convenience proposed by the final rejection does not exist"(Page 6,

Lines 12-17 of Brief).

e) Appellant argues that "As shown in Figure 8, the present invention does
pertain to modification of the IP addresses on the address server. In implementing the
present invention, not only does the administrator still need to always know the
numerical address, they must now know the additional information of the logical name"
(Page 6, Lines 24-28 of Brief)

f) Appellant argues that "any small advantage to a technician in one limited
situation would not justify the added network overhead and additional hardware that
would have been required to achieve it" (Page 7, Lines 7-8 of Brief).

g) Appellant argues "Thus, there is no motivation to combine RAD with Zhang et
al and claims 1-3,8,10, and 11 are allowable" (Page 7, Lines 9-10 of Brief).

**In reply** to argument (a) that "the recited address server is not a domain name
server", the Examiner would like to note that no characteristics distinguishing the
claimed address server from a convention DNS server appear in the rejected claims.
Claim 1 merely states that the address server stores numerical network addresses and
a respective logical name corresponding to each numerical network address, and
responds to queries by providing a numerical network address corresponding to a
logical name contained in a respective query. All claimed limitations of the address
server are clearly and fully met by a conventional DNS server, as evidenced by RAD (at
least Page 7, "Domain Name Resolution").

**In reply** to argument (b) that "The human accessing the service options in unaffected by the implementation of the present invention", the Examiner agrees with this literal statement. However, as an apparent attack on the motivation to combine Zhang and RAD, it fails to consider the motivation presented by the Examiner. The combination of Zhang and RAD provide significant advantages to *administrators* of the system, as was clearly articulated in the Office action of 6/20/2005 (¶8). The fact that the human accessing the service options via the service selection gateway is unaffected is largely irrelevant.

**In reply** to argument (c) that there is no motivation to combine Zhang and RAD since "the address server of the present invention is fulfilling an entirely different purpose – which is to make reconfiguration of service selection gateways possible without making any changes to the service selection gateways", the Examiner respectfully disagrees. As discussed in the Office action of 6/30/2005 (¶2), the combination of Zhang and RAD fulfills this purpose. However, even if it did not fulfill this purpose, which it does, it also makes configuration of the service selection gateways easier by providing the system administrator easy to remember logical names representing the addresses of the service option resources. The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious.  See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

**In reply** to argument (d) that "when changes are made, the administration of the system requires the administrator to continue to know the numerical IP address since it will be necessary to modify the address server to account for changes in resources" and that "the added convenience proposed by the final rejection does not exist", the Examiner respectfully disagrees. Applicant has misinterpreted the cited advantages of the proposed combination. By using an address server as taught by RAD, the administrator is not required to know the numerical IP address for the purpose of *configuring the service selection gateways*. Additionally, by using a logical name when configuring the service selection gateways, a change in the numerical address corresponding to the logical name will not require any changes to the service selection gateway since the mapping is maintained in the address server.

**In reply** to argument (e) that "As shown in Figure 8, the present invention does pertain to modification of the IP addresses on the address server. In implementing the present invention, not only does the administrator still need to always know the numerical address, they must now know the additional information of the logical name", the Examiner respectfully disagrees. This argument is similar to argument (d), discussed above, but it should be noted that the appealed claims contain no recitations regarding modification of the IP addresses on the address server.

**In reply** to argument (f) that "any small advantage to a technician in one limited situation would not justify the added network overhead and additional hardware that would have been required to achieve it", the Examiner respectfully disagrees. Applicant has vastly understated the advantages of the proposed combination of Zhang and RAD.

As discussed above, the combination of Zhang and RAD provides easy to remember logical names for each of the service-option resources offered at the service selection gateways. This feature alone provides at least two advantages. Easy to remember names speed up the configuration process because the administrator needs to remember only the logical names of the service-option resources instead of a numerical address when configuring the service selection gateway. Furthermore, it makes it much clearer which service-option resource is being addressed when reading the configuration information. For example, it is easier to both remember and understand a logical reference (mail.sprint.com) to a mail service than a numerical one (192.168.99.101).

Additionally, the proposed combination of Zhang and RAD provides another advantage for the administrators of the service selection gateways. By using logical names in the configuration of the service selection gateways, reconfiguration of the service selection gateways caused by a change in the numerical address of the service-option resources is completely eliminated. Applicant acknowledges that this reconfiguration of the service selection gateways is "especially burdensome" for larger networks (Page 2, Lines 19-22 of present application). The mapping between the logical names and respective numerical addresses is managed entirely at the address servers

taught by RAD. Any changes to the mapping occur at the address server and are completely transparent to the service selection gateways. This eliminates the need to reconfigure each service selection gateway every time the numerical address of a service-option resource changes. Instead only *a single change* at the address server is required. This tremendously reduces the amount of maintenance required by the administrators of the service selection gateways.

**In reply** to argument (g) "Thus, there is no motivation to combine RAD with Zheng et al and claims 1-3,8,10, and 11 are allowable", the Examiner respectfully disagrees. As discussed above, Applicant has vastly understated the advantages of the proposed combination, and generally attempted to shift the issue toward whether the combination assists an administrator of the address server. However, the motivation presented by the Examiner was clearly directed toward advantages for administrators of the service selection gateway.

As discussed in reply to argument (f), there are several advantages to combining Zhang and RAD. These reasons are explicitly set forth in RAD (at least pages 2 and 9) and would have been apparent to one of ordinary skill in the art.

Applicant has generally claimed a system substantially identical to Zhang coupled with a generic address server to resolve logical names into corresponding numerical addresses. Despite Applicant's contention that the address server is not a DNS server, the rejected claims simply contain nothing to distinguish the address server from a well-known DNS server.

It is apparent that one of ordinary skill in the art, when faced with reconfiguration of a plurality of service selection gateways every time that a numerical IP address of a service-option resource changed, would have been motivated to use a system such as the one disclosed by RAD in order to substantially eliminate the reconfiguration required when the numerical IP address changes.

## (11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.
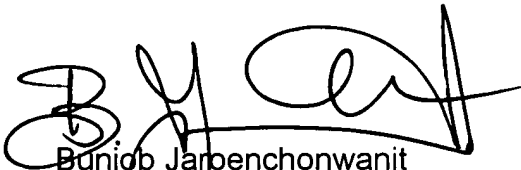
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April 5, 2006

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